

Application No.: 10/652748

Docket No.: TOW-040

REMARKS

Applicant amends claims 1, 3, and 4. Support for the claim amendments can be found throughout the specification and at least at page 11, line 27 to page 12, line 2 and on page 14, lines 14-16. Upon entry of this amendment, claims 1-5 are pending, of which claim 1 is independent. Applicant respectfully submits that the pending claims define over the art of record.

Claim Rejection Under 35 U.S.C. §102

Claims 1 and 4 are rejected under 35 U.S.C. 102(a) as being anticipated by CA 2,422,926 to Beckmann et al. (hereafter "Beckmann"). Applicant respectfully submits that the Beckmann reference does not teach or suggest providing electrolyte electrode assemblies interposed between two separators, where each separator has *a first plate and a second plate that are stacked together*, as required by independent claim 1. The Beckmann reference also does not disclose the element of a fuel gas channel and an oxygen-containing gas channel formed *between said first and second plates which are joined together*, as required by independent claim 1.

In Fig. 2, the Beckmann reference shows that the membrane electrode assembly (MEA) is interposed between separator plates 2 and 2a. Separator plates 2 and 2a both function as an individual separator, and are not composed of multiple plates. In contrast, claim 1 requires that each separator has a first plate and a second plate that are *stacked together*. Although the Beckmann reference discusses that the distributor regions of the separator plate may form a separate plate, the Beckmann reference does not disclose, teach, or suggest that the separate plate for the distributor region is *stacked* together with the other separator plate. As can be seen from Fig. 1, 4 or 5, separator plate 2 has many regions and if the distributor regions 12 form another plate, the multiple plates are not stacked together, but rather placed side by side. Hence, there is a significant difference in structure of the separators between the Beckmann reference and the claimed invention.

Furthermore, the Beckmann reference teaches that a fuel gas channel is formed between the MEA and one of the separator plates and an oxygen-containing gas channel is formed between the MEA and the other of the separator plates. However, claim 1 requires that a fuel gas

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channel and an oxygen-containing gas channel formed *between said first and second plates which are joined together* to form the separator.

Additionally, claim 1 requires that the first plate includes a first outer projection and a first inner projection that sandwich the first ridge and the second plates includes a second outer projection and a second inner projection that sandwich the second ridge. The first outer projection and the second outer project are in contact with each other. The first inner projection and the second inner projection are also in contact with each other. Applicant respectfully submits that this kind of structure is not disclosed in the Beckmann reference.

Furthermore, Applicant respectfully submits that the claimed invention relates to a solid oxide fuel cell in which a plurality of electrolyte electrode assemblies are interposed between separators. In contrast, the Beckmann reference relates to a polymer electrolyte fuel cell in which one MEA is interposed between separators. Applicant respectfully submits that the subject of the claimed invention is different from that of the Beckmann reference.

Therefore, the Beckmann reference does not disclose, teach, or suggest each and every element and limitation of claim 1. Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the rejection of claim 1.

Applicant notes that the dependent claims also recite separate patentable subject matter. As such, for this and the reasons set forth above, the dependent claims also define over the art of record.

Claim Rejection Under 35 U.S.C. §103

Claims 2, 3, and 5 are rejected under 35 U.S.C. §103(a) as being unpatentable over the Beckmann reference in view of JP 11-16581 to Shindo (hereafter "Shindo"). Applicant respectfully submits that the combination of the Beckmann reference and the Shindo reference does not teach or suggest all the elements and limitations of independent claim 1.

As set forth above, Beckmann does not teach or suggest the limitation of electrolyte electrode assemblies interposing between two separators, where each separator has *a first plate and a second plate that are stacked together*, nor the limitation of a fuel gas channel and an

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oxygen-containing gas channel formed *between said first and second plates which are joined together*, as required by independent claim 1.

The Shindo reference teaches that grooves are formed on each separator and a fuel gas pipe and an oxidizing gas pipe are inserted into the grooves. The Shindo reference does not teach or suggest the element that each separator has a first plate and a second plate that are stacked together, hence it is impossible for the Shindo reference to teach or suggest the element that a fuel gas channel and an oxygen-containing gas channel formed *between said first and second plates which are joined together*.


Therefore, the combination of the Beckmann reference and the Shindo reference does not teach or suggest each and every element of independent claim 1. Accordingly, the combination of the Beckmann reference and the Shindo reference does not teach or suggest each and every element of dependent claims 2, 3, and 5. Applicant notes that the dependent claims also recite separate patentable subject matter. Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the rejection of dependent claims 2, 3, and 5.

In view of the above amendment, Applicant believes the pending application is in condition for allowance.

Applicant believes no fee is due with this statement. However, if a fee is due, please charge our Deposit Account No. 12-0080, under Order No. TOW-040 from which the undersigned is authorized to draw.

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Respectfully submitted,

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